Strategic Decision Making in a Health Care
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Abstract

The United State health care system has branded itself on the world stage as spending the most while offering very little care in return. In a valiant effort to improve the health care system, the Patient Protection and Affordable Care Act (ACA) was passed in March of 2010 in order to expand health care coverage, control health care costs, and improve the health delivery system. As a multitude of provisions become law, the health care environment is currently undergoing violent changes. Currently, health care administrators are facing new, unprecedented challenges in the wake of this violent change to their professional environment.

To observe how hospital administrators are reacting to the vast changes in the past five years, one-on-one interviews were conducted with the upper, middle, and lower managers at a public, research hospital institution. The interviews were a mechanism to (1) assess how hospitals were reacting to the implementation of the ACA, (2) explore the hospital administrators’ individual strategic decision-making process, and (3) delve into team hierarchy decision-making. The responses showed a change within personal and organizational behavior among health care administration in response to the changes in the health care environment.

The study provides an example of how decisions are made both individually and as a team within a rapidly changing health care environment. The results of the study illustrate potential patterns in decision-making. Furthermore, the study highlights best practices for other hospitals facing similar challenges in face of the implementation of the ACA.
Introduction

Patient Protection and Affordable Care Act (ACA)

The Patient Protection and Affordable Care Act (ACA) aims to provide Americans with better health care through expanding health care coverage, controlling health care costs, and improving the health delivery system. These three goals were met through specific provisions placed within the final health care reform that President Obama signed into law on March 23rd, 2010. Expanding health care coverage was achieved through provisions such as implementing the individual mandate, requiring employers to offer insurance, and expanding public programs such as Medicaid. Controlling health care costs was achieved through provisions such as simplifying administration roles, authorization of generic drugs, and decreasing waste, fraud and abuse. Improving the health delivery system was achieved through provisions such as encouraging comparative effectiveness research, implementing a national quality strategy, and increasing coverage on preventive services (The Henry J. Kaiser Family Foundation, 2013).

Though these provisions are signed into law on a federal level, the implementation and execution of the ACA varies by state (The Henry J. Kaiser Family Foundation, 2013).

Though North Carolina did not choose to expand Medicaid, North Carolina has still made progress to implement and execute the ACA through implementing various programs (The Henry J. Kaiser Family Foundation, 2013). These programs have also aimed to expand health care coverage, control health care costs, and improve the health delivery system (The Henry J. Kaiser Family Foundation, 2013). Expanding health care coverage was achieved through consumer assistance and outreach. Controlling health care costs was achieved through purchasing and implementing information technology system that simplified administration roles. Improving the health delivery system was achieved through benchmarking the state’s
Essential Health Benefits (EHB) plans (The Henry J. Kaiser Family Foundation, 2013). With the implementation of the changes from regulations of the ACA coupled with the programs that seek to carry it out in North Carolina, the consumers of health care within North Carolina are bound to change.

Consumers of Health Care

Consumers of health care can be defined as persons who utilize health care services (Mosby, 2009). They can be described by various metrics such as number of encounters and payer mix. A single encounter with a health care organization consists of entering the organization, receiving care, and leaving (The McGraw-Hill Companies, Inc., 2002). Hospital encounters can be measured through hospital utilization rates. Patient mix is defined as the mix of various insurances paying for patients’ care (Mosby, 2009). As the consumers of health care are reacting to the implementation and execution of the ACA, hospital administrators may be facing new strategic decision making challenges in the workforce.

Strategic Decision Making Process

Strategic decision-making is the process, as opposed to the content in which administrators react to their environment and enact changes within their organization (Thomas, Clark, & Gioia, 1993). Strategic decision making can be broken down into four parts: scanning, interpretation, action, and performance (Milliken, 1990). Scanning is the act of gathering information about the changing environment (Daft & Weick, 1984). Interpretation is comprehending the information and structuring the data for understanding (Gioia & Sims, 1986). Action is the response administrators’ implement within their organization (Pfeffer & Salanick, 1978). Finally, performance is the act of being able to measure the effectiveness of the interpretation and action (Thomas & McDaniel, 1990). Faced with a changing regulatory
environment coupled with the changing consumers in health care, administrators of hospital departments have begun to work both individually and in teams to conquer these challenges.

**Models of Decision Making**

Models of decision-making are the environment or the context in which the decision is made (Humphrey, Hollenbeck, Meyer, & Ilgen, 2002). Decisions can be made individually or teams of various levels of managers (Humphrey, Hollenbeck, Meyer, & Ilgen, 2002). The three different kinds of decision-making models within organizations: individual decision-making, team lens, and multi-level decision-making (Humphrey, Hollenbeck, Meyer, & Ilgen, 2002). Multi-level decision-making can be analyzed through three core characteristics include: informity, validity, and sensitivity. (Hollenbeck, Ilgen, Sego, Hedlund, Major, & Phillips, 1995) Thus, this study aims to not only research the effects of the ACA on hospitals, but also to investigate strategic decision making process coupled with the environment in which decisions are made by hospital department administrators.
Research Question

This study utilized one-on-one interviews with various hospital administrators at a local public, research hospital. Throughout the interviews, the questions asked intended to measure (1) how hospitals were reacting to the implementation of the ACA, (2) explore hospital administrator’s individual strategic decision making, and (3) delve into context of the strategic decision making. This study addressed the following three research questions:

1) What is the impact of the ACA on the consumers of health care such as number of encounters and patient mix?

2) How are hospital administrators making key strategic decisions in reaction to the ACA?

3) What are the contexts in which hospital administrators are making key strategic decisions in reaction to the ACA?
Literature Review

The Affordable Care Act in America

In recent years, America has faced a plethora of criticisms about its health care system. Prior to 2010, 62% of Americans found it difficult or impossible to find affordable health care coverage. Forty-seven percent of Americans were denied health care coverage or had to pay a significant amount more on premiums because of pre-existing conditions. Furthermore, health insurance annual premiums increased 15% annually, while lacking important benefits with limited coverage. As a result, the average annual growth in health care spending was 6.9% annually (White House, 2014). As a result of these and other problems, on March 23rd, 2010, President Obama signed into law the Affordable Care Act (ACA). The Affordable Care Act aims to improve the American health system through expanding health care coverage, controlling health care costs, and improving the health delivery system (The Henry J. Kaiser Family Foundation, 2013).

Expanding health care coverage

The ACA expands health care coverage for more Americans through provisions such as implementing the individual mandate, requiring employers to offer health care insurance, and expanding public programs. First, the individual mandate requires most US citizens as well as legal residents to have health care insurance. Exemptions to this mandate are followers of specific religions, Native American Indians, undocumented citizens, and those who are incarcerated. If an individual who is not exempted refuses coverage, he/she will have to pay a tax penalty that would be phased into action over the next several years. The tax penalty ranges from $695 to $2085 annually or 2.5% of the household income. Second, the ACA requires employers to offer health care insurance to its employees. Specifically, any employer with over
50 employees will need to provide either health care coverage or provide credit for their employees to purchase health care insurance. In addition, employers with over 200 employees will be required to automatically enroll their employees into a health care insurance program. Finally, the ACA expands public programs such as Medicaid. The ACA allows states to expand Medicaid to all non-Medicare citizens within 133% of the Federal Poverty Line (FPL). Furthermore, states must guarantee a health care package that meets certain essential health benefits (The Henry J. Kaiser Family Foundation, 2013).

**Controlling health care costs**

The ACA controls health care costs through provisions such as simplifying administration roles, saving money on prescription drugs, and decreasing waste, fraud and abuse. First, the ACA has adopted one set of operation methods for eligibility verification and claims status. The ACA also requires healthcare entities to utilize electronic method to conduct transfer of funds, payments, and claims, encounter statistics, and referrals. Failure to adapt will result in a fine of no more than $1 per patient per year. Second, the ACA provides pharmaceutical companies with 12 years of patent protection before it expires to allow for generic version of the drug to be released. The FDA is now able to approve generic versions of biologic drugs. Finally, the ACA seeks to decrease the amount of waste, fraud, and abuse within the American health care system. Through developing databases to share data between federal and state health care entities, the ACA seeks to increase fraud detection while increasing penalties for false claims (The Henry J. Kaiser Family Foundation, 2013).
Improving health delivery systems

The ACA improves the American health delivery system through provisions to implement comparative effectiveness research, national quality strategy, and preventive services. First, the ACA establishes a non-profit patient centered outcomes research institution that identifies research priorities and conduct research that compares clinical effectiveness of medical treatments. Second, the ACA developed a national quality implementation strategy and community based collaborative care network program. The national quality implementation strategy will include priorities important to the delivery of health care services, patient health outcomes, and population health. The community based collaborative care network program will support, coordinate, and integrate care for the lower income population. Finally, the ACA established the National Prevention, Health Promotion, and Public Health Council and the Preventive Service and Community Preventive Services. These programs aims to coordinate preventative care as well as evidence-based practices in public health (The Henry J. Kaiser Family Foundation, 2013).

Though the ACA holds many nationwide goals to improve our health care system, its implementation varies from state to state (The Henry J. Kaiser Family Foundation, 2013). So far, 10 states, as well as the District of Columbia, have set up their own insurance market places, expanded Medicaid coverage, and enacted all aspects of insurance reforms (Cowley, 2014). Though North Carolina decided not to expand Medicaid coverage, it has taken steps to achieve the three goals of the ACA of expanding health care coverage, controlling health care costs, and improving health delivery systems (The Henry J. Kaiser Family Foundation, 2013).
**The Affordable Care Act in North Carolina**

**Expanding health cares coverage – consumer assistance and outreach program**

North Carolina expanded health care coverage through implementing a consumer assistance and outreach program. In April of 2012, the North Carolina Institute of Medicine (NCIOM) created a workgroup to consider utilizing ‘Navigators’ to educate and enroll the public into health care insurance. Four months later in August of 2012, the workgroup utilized federal funds to create call centers. During the months of September and October of 2012, over 3000 calls were answered about enrollment and the ACA. The government then utilized data to identify further geographical areas that had not been reached collected data. In October of 2012, the workgroup hired a community resource manager to continue on the success of the call centers (The Henry J. Kaiser Family Foundation, 2013).

**Controlling health care costs – utilization of information technology**

North Carolina utilized information technology to streamline processes in order to control health care costs. Prior to the ACA, North Carolina contracted a commercial off-the-shelf software to detect eligibility and case management called the NC Family Accessing Service through Technology (NC FAST). NC FAST was also instrumental to provide electronic forms of Medicaid and CHIP enrollment as well as streaming the eligibility enrollment function under the ACA. Federal funds have been used to hire more contractors to enhance additional systems for financial management, planning management, call center operations, and data storage (The Henry J. Kaiser Family Foundation, 2013).

**Improving health delivery systems – Essential Health Benefits**

North Carolina improved health delivery systems through providing Essential Health Benefits (EHB) that met the federal requirement. The ACA required all individual and small
group plans sold in the state to meet a certain requirement. In May of 2012, North Carolina concluded its benchmarking efforts and concluded that all of the state’s options, except for the federal employee option, met the federal requirement with the addition of providing pediatric oral and vision care (The Henry J. Kaiser Family Foundation, 2013).

Though North Carolina did not choose to expand Medicaid, it was still able to improve the quality of health care for its citizens. Of the 581,173 citizens eligible for containing health insurance under the ACA, 357,584 citizens obtained health insurance by April of 2014 (Office of the Assistant Secretary for Planning and Evaluation (ASPE), 2014). This number was greatly benefited by the ‘woodwork effect’, the effect of the intense public media coverage on the ACA that resulted in increased enrollment into health care insurance (Avalere, 2014). However, the increase in coverage in North Carolina signifies a shift in the consumers of health care.

**Consumers of Health Care**

For most health systems, the implementation of the ACA will result in shifts in consumers of health care. Overall, a significantly larger population of newly covered patients through the market exchanges and Medicaid has lower income than people who were already covered through Medicaid before the implementation of the ACA (Aegerter, Cardello, Gardiner, LaBahn, & Matjucha, 2010; Finn, Pellathy, & Singhal, 2009). Patients with Medicaid experience lower rates of cost sharing which can lead to increase of health consumption (Levine, Bauman, & Garrett, 2013). Thus, the implementation of the ACA will affect the payer mix and hospital utilization rates.

**Payer Mix**

The implementation of the ACA will affect the payer mix of the consumers of health care, specifically Medicaid, commercial, self-payers, and the introduction of the market
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exchanges (Levine, Bauman, & Garrett, 2013). Between 2012 and 2015, patients covered by Medicaid are projected to increase from 11 to 12.5% nationwide. Commercial payers are projected to drop from 42 to 33%. Self-pay and miscellaneous payers are projected to decrease from 5 to 2%. Finally, 7% of patients are projected to be covered through the market exchanges (Duva, 2013).

Hospital Utilization Rates

For most health systems, the implementation of the ACA will be significant. The impact of the ACA on hospital utilization rates can be divided into inpatient services, outpatient services, and hospital emergency services (Levine, Bauman, & Garrett, 2013). Inpatient hospital utilization rates are expected to increase 30% (Finkelstein, 2011). Outpatient services are expected to experience the largest growth between 40-70%. This is because outpatient services are extremely sensitive to insurance coverage, especially preventive services such as flu shots, blood pressure measurements, cholesterol checks, and physical checkups. Hospital emergency services are expected to increase 15%. The reduction in out-of-pocket emergency room cost will drive up utilization of emergency services. Furthermore, the increase of outpatient appointments coupled with the anticipated physician shortage, will continue to drive up the utilization of hospital emergency services (Levine, Bauman, & Garrett, 2013).

The implementation of the ACA has begun to change not only the regulatory and legal environment of the American health care industry, but also the consumers of health care. Thus, hospital administrators are faced with increasing challenges.

Strategic Decision Making in Health Care

Strategic decision-making is the method by which administrators of health care organizations understand information and take action to influence their organizational outcomes
(Thomas, Clark, & Gioia, 1993). Within recent years, strategic decision-making has become more and more important as more managers become aware about the wide knowledge-to-practice gap. Within health care, environmental changes are not being utilized efficiently. For example, though multiple research trials showed that statins, a drug, and lowers the mortality and morbidity rates during post-stroke patients, doctors do not often prescribe it. Another study found that the World Health Organization (WHO) in policy decision-making does not utilize systematic reviews of current events.

Strategic decision-making can be divided into four steps: scanning, interpretation, action, and performance (Thomas, Clark, & Gioia, 1993). Because of the constantly changing environments, administrators’ interpretation of the changes of their environment is extremely important to the success of their organization.

**Scanning**

Scanning is the act of information gathering before interpretation and action can be taken. Managers often have access to a plethora of information. This information gathering can beat the external environment but also internally about the organization. In the past, it was the manager’s role to seek out the information (Daft & Weick, 1984). Now, the manager utilizes a team to seek out the information. The manager’s main role is to filter which information is important and identify important events and issues that will affect the organization in the future through interpreting the data. Research often shows that top managers will often act as filters for large environmental changes. Under perfect conditions, they would have all the environmental information. However, in practice, managers are not able to scan every detail of information and often depend of selective attention to choose which pieces of information to scan (Nadkarni &
Currently, scanning is faced with several barriers such as the lack of managers’ skills to organize the high volume of research (Thomas, Clark, & Gioia, 1993).

**Interpreting**

Interpretation is the act of developing and applying ways to organize and prioritize the information found in scanning in a structural way (Gioia & Sims, 1986). Research shows that administrators organizes and prioritizes the information through categorizing it into two categories: positive/negative effects to the organization as well as the ability to control the changes to the organization, as shown below.

![Graph showing the probability to take meaningful action based on level of control over situation and effects (negative vs. positive)](image)

Research shows that administrators are more likely to filter through data and be more receptive to changes that are either positive to the organization and changes that are within their control. Currently, interpretation is faced with a main barrier of the ability to interpret the data through the various levels of the organizational hierarchy (Thomas, Clark, & Gioia, 1993).

**Action and performance**

After the interpretation of data, administrators must plan a course of action. The course of action depends on the interpretation of the data. There are two distinct types of action: small
changes or large, system-wide changes. Research shows that there is a positive correlation between the number of action that takes place and favorable performances. However, there are various barriers a manager is faced within action such as the organizational awareness of the problem, agreement to the proposed changes, and finally barriers to the execution of the recommendations (Nadkarni & Barr, 2008). Performance is the evaluation of the effectiveness of the action (Thomas, Clark, & Gioia, 1993).

**Models of decision-making**

As technology improved over the years and the information available to the general population increased, “We are now responsible for so many decisions requiring so much homework that many of us feel helpless and paralyzed.” (Humphrey, Hollenbeck, Meyer, & Ilgen, 2002, p. 116) As a result, more and more decisions have been made in groups, as opposed to individually. Unfortunately, past research in group decision-making has been more focused on groups that were composed of all equals such as studying how juries reach a verdict. In reality, workforce teams are often composed of a wide range of managers from upper to lower managers (Humphrey, Hollenbeck, Meyer, & Ilgen, 2002).

**Individual decision-making model**

Traditionally, the individual decision making model is the model in which one person is responsible for making the ultimate decision. Through this model, the key decision maker is responsible for weighing two different kinds of factors. The first factor is the environmental cues of the situation. The environmental cues are information about the current and impending changes occurring. The second factor is the decision maker’s interest in each environmental cue. In a perfect world, the decision maker would treat every cue with the same acute interest. Due to plethora of cues, the decision maker is forced to organize and prioritize all the known cues. As
time went on and individual decision-making became less common, studies began looking into team decision-making (Stevenson, Busemeyer, & Naylor, 1990).

**Team lens model**

The team lens model is based on a model in which a key decision maker relies on a staff of ‘researchers’ to find the information relating to the decision. As a result, the decision leader may have existing knowledge and bias toward the decision. A diagram of the team lens model is below.

![Team lens model diagram](image)

The decision is based on (1) the recommendation of the staff, (2) the personal environmental cues that the key decision maker has, or (3) a combination of both the recommendations and personal bias. Furthermore, there is usually a long communication chain. For example, if the key decision maker wants to know what the staff has been researching, it has to go through the managers’ filters of the staff’s research. As a result, there is opportunity for a communication gap between the research conducted by the staff and the key decision maker. (Ilgen, Major, Hollenbeck, & Sego, 1995)

**Multi-level decision-making**
Multilevel decision-making is based on a team in which various team members of various levels of managers are working together to create a decision. It builds on to the team lens model by adding additional layers of analysis. Within this model, there are three core characteristics to create unique team dynamics (Hollenbeck, Ilgen, Sego, Hedlund, Major, & Phillips, 1995).

The three core characteristics are: informity, validity, and sensitivity. Informity stems from the fact that not everyone on the team knows everything about the environment and often filters what they view as most relevant. Decision informity can be calculated as the cues known divided by all available environmental cues. As a result, the cues collected by staff vary by seniority. For example, lower managers may filter environmental cues differently from senior managers. Across the team, everyone may not be as informed as the other staff members. Validity is the value of the subject matter expert as viewed by the team. Often times, the team must establish the weight of each expert of the environment into the final decision. Research shows highly negative judgment by an expert that correlates to the end recommendation is valued as equally as a highly positive judgment by an expert that correlates to the end judgment. Sensitivity is characteristic of reducing the information process to create recommendation. Often times, each staff is not simply weighed via the average. One member of the team’s opinion may be valued more than another team member. The ‘correct’ determination of the weight of each staff member will lead to a more effective end recommendation (Hollenbeck, Ilgen, Sego, Hedlund, Major, & Phillips, 1995).

**Implication for hospital department administrators**

When the ACA was signed into law with much controversy in 2010, it turned the environment of the American health care industry upside down. North Carolina has implemented various programs to achieve the three goals of increasing access to care, containing
health care cost, and improving health delivery system to North Carolinians. As a result, the consumers of health care in North Carolina have shifted to an increase of Medicaid and federal exchange insurance covered patients. These shifts in payer mix coupled with increased utilization of inpatient, outpatient, and emergency hospital services create unique challenges for hospital administrators. Thus, it is crucial for hospital department administrators to fully understand strategic decision making in various context of individual and team with in health care in order to react in a timely order to these changes in the environment.
Methodology

Research Design

This study is based on the exploratory study that aims to view world from the perspective of a cultural group (O'Leary, 2014). Thus, the researcher studied the changing world of health care due to the implementation of the ACA from the view of health care administrators. The researcher conducted in-depth interviews with administrators of hospital programs and services at a local public, research health care system. In-depth interviews allowed the researcher to collect a vast quantity of verbal and non-verbal data through the ability to build trust with the participant.

Participant & Sampling Methodology

Participants were selected through a combination of purposeful and convenience sampling (Seidman, 2014). The target participants were formal leaders within their department. Through reaching out to the associate vice president of the health care system, the researcher was able to identify key administrators within inpatient, outpatient, and emergency programs and services.

The associate vice president of the health care system referred 11 hospital administrators of various manager levels via email. The study conducted five one-on-one interviews. This lends to a response rate of 45%. Two of the five interviews were lower level managers consisting of a coordinator and manager assistant. Two of the five interviews were mid-level managers consisting of two directors. Finally, the upper manager interviewee was an associate vice president.
Data Collection

The data was collected through conducting one-on-one, formal, semi-structured interviews (O'Leary, 2014). The interview was recorded through utilization of the HD Recorder app. One-on-one interviews allowed for the researcher to control the interview process as well as allowing the participant to have more freedom to speak his/her mind. The formal structure of the interview allowed the researcher to not only maintain a professional relationship, but also view the participant in an objective manner. The semi-structured interview allowed the researcher to obtain a deeper understanding of the experiences and reflections of the participant (O'Leary, 2014).

Data Analysis Method

After all the interviews were conducted, the researcher transcribed all the audio text into separate word documents to be manually coded. First, each interview was read multiple times to fully understand the text. Then, the interview was separated into words and sentences for the following three research questions: (1) how hospitals were reacting to the implementation of the ACA, (2) explore hospital administrator’s individual strategic decision making, and (3) delve into context of the strategic decision making.

The researcher utilized Microsoft Excel to find frequency of themes in data. Finally, the researcher inductively analyzed the main themes and drew conclusions (O'Leary, 2014).

Ethical Considerations

The researcher obtained the Institutional Review Board’s approval and exemption through the University of North Carolina at Chapel Hill for this study.
Findings

Overall, the interviewees were willing to truly participate in the interview and often took pauses to think about the answers they were giving. The interviewees were extremely interested in the topic of the study as they have yet to think about how they were reacting to the changing health care environment. Finally, they were intrigued about the intersection of organizational behavior, strategic thinking, and health care.

Research question 1: What is the impact of the ACA on the consumers of health care such as number of encounters and patient mix?

As shown in Table 1, various level of managers in the health care system stated various opinions about the direct impact of the ACA on the consumers of health care. The majority of interviewees stated that there is a direct impact of the ACA on consumers of health care. They stated that there would be an increased percentage of consumers of health care with health care coverage. However, they stated that consumers would have trouble paying off the high deductible. They also stated that there will be an increase in utilization of services overall in the health system due to the increased referrals from consolidating hospitals. However, the impact of the ACA on utilization among various departments may differ. Overall, the overarching theme that was commonly stated was that it is currently difficult determine the direct impact of the ACA on consumers of health care.
Upper level managers stated difficulty in predicting the overall impact of the ACA on consumers of health care at this time.

As shown in Table 2, due to the multitude of rapid, system wide changes in the past year in addition to the implementation of the ACA, the upper manager interviewee stated that he had difficulty in predicting a strong correlation between ACA and various effects. For example, the interviewee stated that, “I don’t have the data [on] whether the tenets of the Affordable Care Act have solely driven the improvement [of utilization] or did some of that improvement come through [implementation of] EPIC.” This quote shows how there is not a concrete cause and effect in the health care environment. Often times, it may be a combination of various factors that are hard to isolate. The upper manager interviewee also stated that there would be an increased percentage of covered patients and increased utilization due to the increased coverage by the ACA. However, it was interesting to note that the interviewee stated that he inferred the increase of utilization through increased revenues. The interviewee stated, “Whether or not
we’re actually seeing an increase in collections, I can’t answer specifically for us, but my guess is, based on our financial performances, that yes, there’s been an improvement [in utilization rates].” This quote showed that the interviewee turned towards data when addressing the impact of the ACA.

<table>
<thead>
<tr>
<th>Themes</th>
<th>Quotations</th>
</tr>
</thead>
<tbody>
<tr>
<td>The health care system is witnessing an increased percentage of insured patients</td>
<td>“My understanding is that we’re seeing more covered patients.” “We’re doing a better job of registering patients, capturing information, capturing charges, we’re doing a better job electronically at managing the health information.”</td>
</tr>
<tr>
<td>The health care system may be witnessing an increase in utilization rates</td>
<td>“Whether or not we’re actually seeing an increase in collections, I can’t answer specifically for us, but my guess is, based on our financial performances, that yes, there’s been an improvement [in utilization rates].”</td>
</tr>
<tr>
<td>There is difficulty in gauging the direct impacts of the ACA on consumers of health care</td>
<td>“That’s going to be a difficult question for me to answer in specifics.” “I don’t have the data [on] whether the tenets of the Affordable Care Act have solely driven the improvement [of utilization] or did some of that improvement come through [implementation of] EPIC.” “But again, I can’t tell apart whether that’s [the changes in utilization is] completely EPIC related or if it’s ACA. My guess is it’s a combination.”</td>
</tr>
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</table>

Middle managers stated various opinions on the direct impact of the ACA on consumers of health care

As shown in Table 3, middle managers stated that they expect an overall health system increase in utilization. Due to the fact that smaller hospitals are consolidating into larger health care systems, like the one examined in this study, referrals are becoming internalized. However, among the departments that the middle managers leads, the change of the ACA will depend on the department, as stated below.
From an acute care setting standpoint, so as far as patients and beds, it [occupancy] has always been very high, we’re always above 90% occupancy. That would be, I think, a primary question for a clinic setting, I get a sense that utilization has increased from a clinic setting.

This quote shows that the interviewee, who leads in patient departments, will see a different impact on utilization as opposed to the outpatient clinic settings. Furthermore, one middle manager interviewee stated that he/she is still struggling to understand how the ACA would affect their departments due to the plethora of environmental factors and information surrounding this change.

<table>
<thead>
<tr>
<th>Table 3: Impact of the ACA on the Consumers of Health Care [Middle Managers]</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Themes</strong></td>
</tr>
<tr>
<td><em>There is difficulty in gauging the direct impacts of the ACA on payer mix of patients</em></td>
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<tr>
<td></td>
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<tr>
<td><em>The impact of the ACA on utilization rates may vary by clinic</em></td>
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<tr>
<td><em>There is difficulty in gauging the direct impacts of the ACA on consumers of health care</em></td>
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</table>
Lower manager interviewees’ opinions on the impact of the ACA on consumers of health care are vastly different from upper and middle managers interviewees’ opinions.

As shown in Table 4, a majority of their responsibilities are composed of day-to-day interaction with patients. As a result, they are not really looking at the insurance coverage percentage or utilization as much as the upper and middle managers, as stated below.

One of the great things about being closer to the bedside is that we aren’t very privy to people's socioeconomic status. We can kind of guess, but we don't have anything to do, really, with insurance, or whether they're Medicare or Medicaid.

This quote shows that lower managers are more involved with day-to-day operations to care for patients, not the impact of the ACA on the consumers of health care. As a result, the study highlights how upper, middle, and lower managers focus on different environmental cues.

<table>
<thead>
<tr>
<th>Themes</th>
<th>Quotations</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>Due to a heavier focus on patient care and quality, the insurance coverage of the patient or increased utilization do not affect the quality of care on a day to day basis</em></td>
<td>“With regards to trauma, I don’t think it [ACA’s impact on consumers of health care] has changed. Severely injured trauma patients receive care regardless of their ability to pay or their insurance.”</td>
</tr>
<tr>
<td></td>
<td>“One of the great things about being closer to the bedside is that we aren’t very privy to people's socioeconomic status. We can kind of guess, but we don't have anything to do, really, with insurance, or whether they're Medicare or Medicaid.”</td>
</tr>
</tbody>
</table>
Research question 2: How are hospital administrators making key strategic decisions in reaction to the ACA?

As shown in Table 5, all of the interviewees stated a clear, logical decision making method that fit within the model of scanning, interpreting, and action. Overall, a common method for managers to glean information about the ACA was through attending classes, professional associations, and hospital briefs/retreats. However, the focus and interpretation of the scanning information varied among upper, middle, and lower managers.

<table>
<thead>
<tr>
<th>Level</th>
<th>Scanning</th>
<th>Interpreting</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>Upper managers</td>
<td>Hospital administrators learned about the ACA through attending classes and professional meetings. Hospitals also provide daily briefings and information about the environment.</td>
<td>Focusing more on improving the patient experience. Focusing more on reducing expenses Focusing more on being better positioned for change</td>
<td>Evaluation of cost and revenue structure of the health care system Hiring consultants to prepare the health care system for changes</td>
</tr>
<tr>
<td>Middle managers</td>
<td>Hospital administrators learned about the ACA through classes, NPR, and professional meetings. Hospitals also provide daily briefings and information about the environment.</td>
<td>Utilizing past personal experiences to help interpret the information Utilizing a vast quantity of past data to find trends Focusing on new reimbursement rulings</td>
<td>Participating in multiple committees that target certain aspects of the ACA Committees are made up of a wide range of hospital administrators to target problems</td>
</tr>
<tr>
<td>Lower managers</td>
<td>Hospital administrators learned about the ACA through classes, NPR, and professional meetings. Hospitals also provide daily briefings/retreats and information about the environment.</td>
<td>Focusing on day-to-day operations. Focusing more on delivering quality care to patients Focusing increasing operational efficiency</td>
<td>Participating in multiple committees that target certain aspects of the ACA Committees are made up of a wide range of hospital administrators to target problems</td>
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</tbody>
</table>
Upper level managers stated a stronger emphasis on focusing on the big picture of the health care system when filtering through environmental cues.

As shown in Table 6, upper manager interviewee stated that he/she learned most about ACA through a class taken at the public health school voluntarily coupled with professional associations as well as hospital briefings. The interviewee stated he/she then interprets the data into big picture themes such as: overall patient care, overall revenues, and how to best position the hospital, as stated below.

*But what we’re trying to do is lay the groundwork and build a new framework because we know that things like population health managers and the other pieces of the Accountable Care Act are going to be impacting us and we want to be better positioned in time instead of reacting to an urgent need of change.*

This quote shows how the interviewee was more focused on the big picture and goals of the health care system such as the prevention of adverse impacts of the ACA. This has lead towards more proactive measures of action such as hiring consultants to not only prepare the hospital for the changes with the ACA, but also to cut down on expenses, operations, and increase revenue. These actions are solely to affect the bottom line and larger picture of the health system.
Table 6: How Hospital Administrators Make Strategic Decisions [Upper Managers]

<table>
<thead>
<tr>
<th>Stages</th>
<th>Themes</th>
<th>Quotations</th>
</tr>
</thead>
</table>
| Scanning    | Hospital administrators learned about the ACA through attending classes and professional meetings.  
Hospitals also provide daily briefings and information about the environment. | “One, I actually took a Healthcare Reform and Policy class…and then also, most of my information is coming through professional societies.” |
| Interpreting| Focusing more on improving the patient experience.  
Focusing more on reducing expenses  
Focusing more on being better positioned for change | “We’re even more focused on making sure that we’re managing and improving the patient experience.”  
“But what we’re trying to do is lay the groundwork and build a new framework because we know that things like population health managers and the other pieces of the Accountable Care Act are going to be impacting us and we want to be better positioned in time instead of reacting to an urgent need of change.” |
| Action      | Evaluation of cost and revenue structure of the health care system  
Hiring consultants to prepare the health care system for changes | “We have undertaken a massive evaluation of our operating cost and revenue structure, not only for the medical center, but we’re looking across the entire system.”  
“We brought in a consultant to help us do the evaluation and there’ve been recommendations made and there are some targets that have been set to reduce operating expenses and improve revenue cycle, revenue collection.” |
Middle level managers stated an emphasis on focusing on the big picture of their department when filtering through environmental cues

As shown in Table 7, middle managers described similar scanning resources as upper managers through classes, hospital briefing/retreats, and professional organizations. However, middle managers stated they interpreted their data differently from upper managers. Though they stated a focus on the big picture, the middle managers interpret the data in terms of their department they are leading. One interviewee stated, “We basically are breaking down all the different components of length of stay and throughput to see which part of it we can make better within the constraints of confines of our capacity.” Middle managers stated that they broke down components of environmental cues within their department and utilized the data scanned to fit within their department. As a result, middle managers stated that they often undertake different actions than upper managers. Often times, middle managers worked on teams of other middle and lower managers that are led by upper managers that target a problem within their department, as shown below.

*That [project idea] goes to the executives, they look at it [project idea], they assign the project and an executive sponsor which is typically a VP level and then that executive sponsor puts together a team that is multi-disciplinary.*

This quote shows how middle managers really focused on working in teams that are focused on fixing a problem within their department. As a result, unlike upper managers, they are more focused on the big picture of the department, not the whole health system.
<table>
<thead>
<tr>
<th>Stages</th>
<th>Themes</th>
<th>Quotations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Scanning</td>
<td>Hospital administrators learned about the ACA through classes, NPR, and professional meetings.</td>
<td>“I started that [MHA] program in 2010 and graduated in 2012, so that’s right when the Affordable Care Act went into play, so a huge part of my MHA curriculum centered around the Affordable Care Act.”</td>
</tr>
<tr>
<td></td>
<td>Hospitals also provide daily briefings and information about the environment.</td>
<td>“Some of the information that I get at this level is not as detailed when it comes to the payer mix as the executives would see it at their level.”</td>
</tr>
<tr>
<td>Interpreting</td>
<td>Utilizing past personal experiences to help interpret the information</td>
<td>“We basically are breaking down all the different components of length of stay and throughput to see which part of it we can make better within the constraints of confines of our capacity.”</td>
</tr>
<tr>
<td></td>
<td>Utilizing a vast quantity of past data to find trends</td>
<td>“So decisions I make in my job I always rely on the data.”</td>
</tr>
<tr>
<td></td>
<td>Focusing on new reimbursement rulings</td>
<td>“Other decisions have to do with quality indicators.”</td>
</tr>
<tr>
<td>Action</td>
<td>Participating in multiple committees that target certain aspects of the ACA</td>
<td>&quot;That [project idea] goes to the executives, they look at it [project idea], they assign the project and an executive sponsor which is typically a VP level and then that executive sponsor puts together a team that is multi-disciplinary.”</td>
</tr>
<tr>
<td></td>
<td>Committees are made up of a wide range of hospital administrators to target problems</td>
<td>“Generally it’s a team because nobody works in isolation so it’s all interconnected. Throughput and length of stay doesn’t happen with one discipline, so everybody works together.”</td>
</tr>
</tbody>
</table>
Lower level managers stated a stronger emphasis on focusing on day-to-day operations when filtering through environmental cues

As shown in Table 8, lower managers, similar to upper and middle managers, scan from similar sources such as classes, hospital briefings/retreats, and professional organizations. Similar to middle managers, lower managers stated that they focus and interpret the data in the context of their departments. Unlike middle managers, lower managers stated that they focused more on the day-to-day operations and challenges that come up in the department. One interviewee stated, “Just not having time to be preventative about these problems that are coming down the pike.” This quote shows how the interviewee is more focused on the day-to-day problems, as opposed to upper managers who are focused on preventive system wide challenges and middle managers who are focused on the big picture of the department. This results in different actions to be taken as a result, as shown below.

*We have a lot of those process improvements going on throughout the hospital. We’re constantly looking and, again, to just streamline things. We've seen a lot of those.*

This quote shows how as challenges evolve, lower managers are looking at improvements to improve on those challenges. They are constantly streamlining projects and operations to make the process of the day-to-day care of the patients more efficient. Similar to middle managers, lower managers stated that they work on committees to combat the challenges brought on by the ACA. Overall, teamwork has been a common theme among all three managers levels. Thus, examining the context of this teamwork is essential to the findings of the study.
Table 8: How Hospital Administrators Make Strategic Decisions [Lower Managers]

<table>
<thead>
<tr>
<th>Stages</th>
<th>Themes</th>
<th>Quotations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Scanning</td>
<td><em>Hospital administrators learned about the ACA through classes, NPR, and professional meetings.</em>&lt;br&gt; <em>Hospitals also provide daily briefings/retreats and information about the environment.</em></td>
<td>“So I completed my Master’s in Healthcare Administration, the executive program where we basically spent three and a half years trying to figure out how to best prepare for the ACA, so most of my exposure has been through that.”&lt;br&gt;“We’d get e-mails about it all the time. It’s come at us from all different—with professional organizations that nurses belong to.”</td>
</tr>
<tr>
<td>Interpreting</td>
<td><em>Focusing on day-to-day operations.</em>&lt;br&gt; <em>Focusing more on delivering quality care to patients</em>&lt;br&gt; <em>Focusing increasing operational efficiency</em></td>
<td>“The population that I’m talking about or the people that get involved in car wrecks or the people that have falls or gunshot wounds…So in that way, it’s not really—The ACA really isn’t affecting that population”&lt;br&gt;“Just not having time to be preventative about these problems that are coming down the pike.”</td>
</tr>
<tr>
<td>Action</td>
<td><em>Participating in multiple committees that target certain aspects of the ACA</em>&lt;br&gt; <em>Committees are made up of a wide range of hospital administrators to target problems</em></td>
<td>“We have a lot of those process improvements going on throughout the hospital. We're constantly looking and, again, to just streamline things. We've seen a lot of those.”</td>
</tr>
</tbody>
</table>

Research question 3: What are the contexts in which hospital administrators are making key strategic decisions in reaction to the ACA?

Overall, there was a consensus among all three levels of managers’ interviewees that there is no longer any individual decision making in health care. One interviewee stated, “Generally it’s a team because nobody works in isolation so it’s all interconnected. Throughput and length of stay doesn’t happen with one discipline, so everybody works together.”
The trend of health care has begun to lean towards group work. Thus, the context in which health care strategic decisions are made fits more into the spectrum of the team lens model and multi-level decision making. In terms of team lens model, there is a communication gap between the upper and lower managers levels. Each manager stated differences on their opinions on the effect of the ACA on the health care system. This is due to the varying pressures of the ACA that differs to each manager’s level through the interpretation to their goals and focuses. However, the utilization of committees that comprise of upper to lower managers is a great way to minimize the communication gap.

The three core characteristics of a multi-level decision are: informity, validity, and sensitivity (Hollenbeck, Ilgen, Sego, Hedlund, Major, & Phillips, 1995). The committees being utilized at this health care system exhibit all three characteristics. The interviewees stated informity through the stated acknowledgement that not everyone is able to collect all the environmental cues about the ACA. The varying level of managers’ information is apparent as one interviewee in middle managers stated.

Some of the information that I get at this level is not as detailed when it comes to the payer mix as the executives [upper managers] would see it at their level.

As a result, various managers collect various environmental cues as well. The interviewees described validity through stating respect to both internal and external subject matter experts. For example, every hospital administrator spoke respectfully of external sources such as Advisory Board and other professional organizations when scanning for information. Furthermore, committees are constructed of varying levels of managers with the understanding that each member brings in a unique perspective to the problem. Finally, the committee exhibits sensitivity through having a leader in the committee, usually an upper level manager, who
weighs each member’s judgment and opinions to formulate a final recommendation. At the moment, the interviewees did not state whether each staff member is weighed equally during the formulation of the recommendation. Thus, the sensitivity core characteristic can be explored more in depth in future studies.
Discussion

The findings from this study indicated an impact of the ACA on the consumers of health care. Interviewees described an increased patient coverage and overall utilization in the health care system. However, there were several general disagreements among interviewees who described the varying level of utilization among the units of care. This is mainly due to the differences in strategic decision-making. Often, while the health care managers may scan their environmental cues from similar sources, the interpretation of the data varies by the focus and concerns of the various managers’ levels. However, through working as a team, the various managers’ are able to come together to create recommendations and solutions that are parallel to the goals of each manager’s level. These teams have shown informity, validity, and sensitivity in the multi-level decision making model.

Relation to prior literature

In response to the research question of the impact of the ACA on consumers of health care, the response of the interviewees were mostly parallel to the literature

The interviewees described an increase in payer mix, similar to the 2014 Duva article (Duva, 2013). However, one interviewee observed that though there are more patients with coverage, he/she wondered if those patients were able to afford the new deductibles. Furthermore, the interviewees agreed that there would be an overall increase in utilization in certain clinics, similar to the Levine, Bayman, & Garrett article (2013). However, the reasoning behind this increase in utilization was different. One interviewee stated that because of the recent consolidation of health care entities to join large system due to the ACA, the referral system is now completely internalized. As a result, the utilization rates would increase.
In response to the method in which health care administrators make key strategic decisions, the response of the interviewees differed a little from prior literature.

Parallel to prior literature, interviewees stated that there is no longer one manager scanning the environment. Instead, the interviewees stated that the health care system employs committees of various staff to scan and interpret the environment. Furthermore, the interpretation of the information from scanning has changed. The Thomas, Clark, and Gioia (1990) article, pointed out that staffs were more likely to filter positive and actionable environmental cues. However, this was not the case according to an interviewee. The interviewee stated that he/she was more likely to filter environmental cues in relationship to his/her job pressures. For example, a high level manager stated that he/she filtered the environmental cues in a way to best position the health care system, while a lower manager stated that he/she filtered the environmental cues to see which section of the ACA most affected their day to day job to provide care to patients.

In response to the context in which health care administrators make strategic decisions, the response of the interviewees were mostly parallel to the literature concerning the team lens and multi-level decision-making model.

The Ilgen, Major, and Hollenbeck (1995) identified a communication gap between upper managers and lower managers. This was reflected as interviewees stated different opinions on the effect of the ACA on the consumers of health care. Through the implementation of committees, multiple interviewees stated that their method of making key decisions in groups were aligned with the multi-level decision making model through exhibiting the three core concepts of informity, validity, and sensitivity.
Significance of findings

First, the various level of managers stated various opinions to the same question about the impact of the ACA on the consumers of health care. There is a clear gap in knowledge between the upper, middle, and lower managers. This is due to the various environmental pressures of various jobs that force each manager to interpret data in unique ways. As a result, a lower manager’s interpretation of data may differ from upper managers.

Second, there is a transition on how health care administrators make key decision-making. In the past, health care decision-making was usually dependent on past personal experiences. However, with the implementation of the ACA and the vast changes in the health care environment, the previous experiences of health care administrators may not be as applicable. As a result, strategic decisions are based on data. The upper manager interviewee stated that data is utilize to decrease cost, while a middle managers interviewee stated that data is utilized to increase operation efficiency within a department.

Third, there is a transition of the context in which health care administrators make key strategic decisions. In the past, strategic decisions were often made by one person and executed by a team of staff. Now, it has transitioned into a team/committee effort as stated by multiple interviewees. Not only are health care administrators working in teams, but working in teams of various levels of managers. This allows the final recommendation made by the team to be able to not only fit the mission and vision of upper managers, but also be executable by lower managers.
**Future application & next steps**

First, the study has identified the importance of teamwork in a health care setting. No longer are health care decisions made individually based on a person’s previous experience, rather, health care decisions are best made and executed in teams with the common goal to provide better quality care for the patients. The implementation of committees led by an upper manager is a great method in which the decisions and recommendations created are aligned with the goals of each level of managers. Furthermore, within each committee, respect is given to each staff member from every level of managers. Though the early success of teamwork in a health care setting has been abundant, there is still room for improvement.

Second, due to the vast amount of environmental factors and cues within the health care environment, various levels of managers may not be fully informed and may not interpret the decisions in the same way. As a result, higher level of managers would not be able to fully understand the pressures of day-to-day tasks of the lower managers, while lower managers may often disregard the pressures of upper managers to view the big picture. In order to decrease the communication gap, health systems can create programs in which upper, middle, and lower managers spend time in the context of each other’s job to fully understand the pressures and interpretation factors each administrator undergoes. In this way, upper managers can experience the pressure of day-to-day decision-making first hand while lower managers can experience the pressure of maximizing the bottom line of the health care system to see the big picture.

Finally, the interviews conducted in this survey were few and located in one large, research public hospital. As a result, there are many limitations to the study, as mentioned earlier. For future studies, a copy of the interview guide, provided in the Appendix, can be translated to an electronic survey to be sent out to various hospital administrators in various
types of hospitals around the nation. This will allow the study to find more trends in decision-making in hospitals coupled with strengths and weaknesses in the context in which decisions are being made.

**Limitations of study**

First, the study has a small sample size of five one-on-one interviews. This may result in skewed research findings by random bias (Pagano & Gauvreau, 2000). Furthermore, this study only had access to one upper manager, two middle managers, and two lower managers. Though the ratio of the levels of administrators may reflect the ratio in the health care system, more data points would have been beneficial to reduce the random bias.

Second, all participants were recruited from a large, public, research hospital. Thus, the findings of this study may not reflect all hospitals in the nation. However, this is a good starting point for this study and is generalizable for a large percentage of hospitals. If given another opportunity to further this study, gathering more data points from a variety of health care systems will allow the data to be more generalizable to other hospitals and health care systems.

Finally, the convenience sampling methodology used to find the participants will add further, potential bias to the findings of the study (Pagano & Gauvreau, 2000). As stated in the findings, everyone who participated in the findings was very eager to explore the topic and voice their opinions. However, these participants responded to an email written by a very influential member in the health care system. As a result, the participants may have felt an obligation to respond and/or respond in a more positive manner. In the future, conducting an additional, anonymous survey may be able to decrease this bias.
Conclusion

The United States spends a staggering amount of money every year on health care. Yet, among all the developed nations, the United States is ranked among the worst in providing access to quality health care. The Patient Protection and Affordable Care Act aimed to allow Americans to receive better health care. As a result, the health care environment is undergoing massive changes in terms of not only who is receiving care but also how Americans are receiving care. These changes have transformed how health care administrators make strategic decision making coupled with the context in which these strategic decisions are made in. This study has identified some areas for improvement as well as areas in which health care systems are thriving through the cross section of organizational behavior, leadership, and health care. Further studies can explore additional areas of teamwork in health care systems to help hospital administrators find more innovative solutions for America’s health care system.
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References


